



# **CNET 4190 – Quality Management in Construction**

**3 Credit Hours**

## **Spring 2024 Syllabus (Subject to Change)**

**Lecture: Section 001**

### **Instructor Contact**

**Name:** Aloysius (Al) Attah, Ph.D., P.E.

**Office Location:** NTDP Room F101E

**Phone Number:** 940-565-2022

**Email:** [Aloysius.attah@unt.edu](mailto:Aloysius.attah@unt.edu)

### **Office Hours:**

Monday: 4:00 p.m. – 5:00 p.m.

Tuesday: 1:00 p.m. – 2:00 p.m.

Thursday: 1:00 p.m. – 1:50 p.m.

Other Times: By appointment

**Lecture Meeting Room:** NTDP: Room F185

**Lecture Meeting Days/Times:** Monday: Section 001 06:00 p.m. to 08:50 p.m.

**Communication Expectations:** The primary tools that will be used to communicate directly with students, are email and the learning management system.

- Students should send personal concerns or questions to the instructor’s email address.
- Students should send grading concerns or questions to the instructor’s or TA’s email address.
- Generally, students can expect to receive a response to emails within 72 hours. The time frame in receiving feedback on assignments is one to two weeks depending on the type of assignment. Grades will be posted within 72 hours after the assignments are graded and returned. Additionally, CLEAR has a webpage for students that provides [Online Communication Tips](https://clear.unt.edu/online-communication-tips) (<https://clear.unt.edu/online-communication-tips>).

### **Welcome to UNT!**

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT’s full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

## Course Description

Introduction to the principles and techniques associated with quality management and six sigma concepts as practiced in the construction industry. Prerequisite(s): CNET 2180.

## Course Structure

This course is face-to-face. The lecture and the lab components are delivered face-to-face. The length of the semester, including spring break, is seventeen weeks. The following course outline, **which is subject to change**, shows the topics to be covered weekly.

### COURSE OUTLINE: (Subject to change)

Week	Dates	Topics and Activities	Assignment/Activity Due Dates
1	Jan. 15	MLK Jr. Day University Closed	
2	Jan. 22	Chapter 1: Overview of Quality Pages 1 - 62	Individual Assignment No. 1 Due: Jan. 29
3	Jan. 29	Chapter 1: Overview of Quality Pages 62 - 120	Group Assignment No. 1 Due: Feb. 5
4	Feb. 5	Chapter 2: Quality Management System	Individual Assignment No. 2 Due: Feb. 12
5	Feb. 12	Chapter 3: Construction Projects	Group Assignment No. 2 Due: Feb. 19
6	Feb. 19	Chapter 4: Quality in Construction Projects Pages 217 – 254	Individual Assignment No. 3 Due: Mar. 4
7	Feb. 26	<ul style="list-style-type: none"> <li>• TEXO Competition</li> <li>• Midterm Exam</li> <li>• NAHB Competition</li> </ul>	
8	Mar. 4	Chapter 4: Quality in Construction Projects Pages 254 – 300	Group Assignment No. 3 Due: Mar. 18
9	Mar. 11	<b>Spring Break: March 11 – March 17</b>	
10	Mar. 18	Chapter 4: Quality in Construction Projects Pages 300 – 353	Individual Assignment No. 4 Due: Mar. 25
11	Mar. 25	Chapter 4: Quality in Construction Projects Pages 353 - 440	Group Assignment No. 4 Due: Apr. 1
12	Apr. 1	Chapter 5: Operations and Maintenance	Individual Assignment No. 5 Due: April 8
13	Apr. 8	Appendix C: Quality Control Plan	Group Assignment No. 5 Due: Apr. 22
14	Apr. 15	Chapter 6: Facility Management	
15	Apr. 22	Chapter 7: Assessment of Quality	
16	Apr. 29	Reflections / Review	
17	May 6	<b>Final Exam</b>	

## Course Prerequisites or Other Restrictions

CNET 2180

## Course Objectives

By the end of this course, students will be able to:

1. Demonstrate an understanding of the principles and techniques associated with quality management and six sigma concepts as practiced in the construction industry.
2. Develop a basic Quality Control Plan for a construction project.

## ABET Student Outcomes addressed:

1. ABET #1: an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline.

## Materials

REQUIRED TEXTBOOK:

Quality Management In Construction Projects 2<sup>nd</sup> Ed by Abdul Razzak Rumane:

**ISBN:** 9781498781671 (Hardback)    **ISBN:** 9781498781688 (e-book)

## Teaching Philosophy

My approach for teaching this course involves lectures, group presentations by students, class discussions, assignments, tests, and exam. To succeed in this course, I recommend you spend a minimum of two hours studying the course material for each hour of the class lecture. To best benefit from the course, do not wait till the last minute before an assignment is due or the day of an exam to seek help. If you send questions via email, my goal is to respond within 48 hours. Therefore, use this as a guideline when you seek my help.

## Course Technology & Skills

### Minimum Technology Requirements

Below is a list of the minimum technology requirements for students:

- Computer
- Reliable internet access
- Speakers
- Microphone
- Plug-ins
- Microsoft Office Suite
- [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (https://clear.unt.edu/supported-technologies/canvas/requirements)

## Computer Skills & Digital Literacy

Below is a list of course-specific technical skills students must have to succeed in the course:

- Using Canvas
- Using email with attachments
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs

## Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UIT Help Desk:** [UIT Student Help Desk site](http://www.unt.edu/helpdesk/index.htm) (<http://www.unt.edu/helpdesk/index.htm>)

**Email:** [helpdesk@unt.edu](mailto:helpdesk@unt.edu)

**Phone:** 940-565-2324

**In Person:** Sage Hall, Room 130

**Walk-In Availability:** 8am-9pm

**Telephone Availability:**

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

**Laptop Checkout:** 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (<https://community.canvaslms.com/docs/DOC-10554-4212710328>)

## Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individuals’ experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”

- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

See these [Engagement Guidelines](https://clear.unt.edu/online-communication-tips) (https://clear.unt.edu/online-communication-tips) for more information.

## Course Requirements

The table below contains all required graded activities for the course, along with a short description and the points possible.

<b><u>Graded Activities</u></b>	<b><u>Points Possible</u></b>
<i>Attendance</i>	<i>50 points</i>
<i>Individual Assignments</i>	<i>100 points</i>
<i>Group Assignments</i>	<i>100 points</i>
<i>Midterm Exam</i>	<i>125 points</i>
<i>Final Exam</i>	<i>125 points</i>
<b><i>Total Points Possible</i></b>	<b><i>500 points</i></b>

## Grading

Below is the grading scale (A-F) along with the point totals that will be used to calculate the final grade.

A = 450-500 points

B = 400-449 points

C = 350-399 points

D = 300-349 points

F = 0-299 points

### Additional Information on Graded Activities

1. Each student will be assigned to a group which will remain together for the rest of the semester.
  - A student’s lack of attendance and active participation in the group will impact the student’s final course grade.
2. Rereports must be prepared professionally per the “Technical Writing Guidelines” posted on CANVAS.

## Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. The SPOT evaluations survey for the semester will open towards the end of the semester.

## Course Policies

### Attendance Policy

Students are required to attend every lecture session.

#### COVID-19 Impact on Attendance

While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me prior to being absent so I may make a decision about accommodating your request to be excused from class.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or [askSHWC@unt.edu](mailto:askSHWC@unt.edu)) or your health care provider. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or [COVID@unt.edu](mailto:COVID@unt.edu) for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

#### Statement on Face Covering

Face coverings are strongly recommended in all UNT facilities. If you are unable to wear a face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering recommendations are subject to change due to community health guidelines. Any changes will be communicated via the instructor.

### Class Participation

Students are expected to participate in classroom discussions.

### Late Work

1. No late work will be accepted. All work turned in after the deadline will receive a grade of zero unless the student has a [university-excused absence](#) and provides documentation with 48 hours of the missed deadline.

### Tests/Examination Policy

There will be a midterm exam and a final exam as shown in the course outline.

### Assignment Policy

The official due dates for assignments are as shown under “Course Structure”. Additional instructions will be posted in CANVAS under the assignment link. File-type assignments should be saved as .DOC. Files should be submitted via the Assignment drop box.

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any

problems to the instructor and contact the UNT Student Help Desk: [helpdesk@unt.edu](mailto:helpdesk@unt.edu) or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

### Syllabus Change Policy

This syllabus is subject to change. Students will be notified of any change.

## UNT Policies

### Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. [Insert specific sanction or academic penalty for specific academic integrity violation.]

### ADA Policy

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website \(https://disability.unt.edu/\)](https://disability.unt.edu/).

### Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

### Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe

electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

### Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

### Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: [my.unt.edu](https://my.unt.edu). All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

### Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available towards the end of the semester to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](mailto:no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (http://spot.unt.edu/) or email [spot@unt.edu](mailto:spot@unt.edu).

### Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim's compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at [SurvivorAdvocate@unt.edu](mailto:SurvivorAdvocate@unt.edu) or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at [oeo@unt.edu](mailto:oeo@unt.edu) or at (940) 565 2759.



## Important Notice for F-1 Students taking Distance Education Courses

### Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination, or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

### University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email [internationaladvising@unt.edu](mailto:internationaladvising@unt.edu)) to get clarification before the one-week deadline.

### Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (<https://policy.unt.edu/policy/07-002>).

### Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Download the UNT System Permission, Waiver and Release Form

### Transmission and Recording of Student Images in Electronically-Delivered Courses

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

### Class Recordings & Student Likenesses

Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas

Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

## Academic Support & Student Services

### Student Support Services

#### *Mental Health*

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center) (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (https://studentaffairs.unt.edu/care)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry) (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling) (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

#### *Chosen Names*

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](#)
- [UNT ID Card](#)
- [UNT Email Address](#)
- [Legal Name](#)

*\*UNT eulDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

#### *Pronouns*

Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don't assume someone's name, we should also ask and not assume someone's pronouns.

You can [add your pronouns to your Canvas account](#) so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- [What are pronouns and why are they important?](#)
- [How do I use pronouns?](#)
- [How do I share my pronouns?](#)
- [How do I ask for another person's pronouns?](#)

- [How do I correct myself or others when the wrong pronoun is used?](#)

#### *Additional Student Support Services*

- [Registrar](https://registrar.unt.edu/registration) (https://registrar.unt.edu/registration)
- [Financial Aid](https://financialaid.unt.edu/) (https://financialaid.unt.edu/)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services) (https://studentaffairs.unt.edu/student-legal-services)
- [Career Center](https://studentaffairs.unt.edu/career-center) (https://studentaffairs.unt.edu/career-center)
- [Multicultural Center](https://edo.unt.edu/multicultural-center) (https://edo.unt.edu/multicultural-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [Pride Alliance](https://edo.unt.edu/pridealliance) (https://edo.unt.edu/pridealliance)
- [UNT Food Pantry](https://deanofstudents.unt.edu/resources/food-pantry) (https://deanofstudents.unt.edu/resources/food-pantry)

#### *Academic Support Services*

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources) (https://clear.unt.edu/canvas/student-resources)
- [Academic Success Center](https://success.unt.edu/asc) (https://success.unt.edu/asc)
- [UNT Libraries](https://library.unt.edu/) (https://library.unt.edu/)
- [Writing Lab](http://writingcenter.unt.edu/) (http://writingcenter.unt.edu/)